James Acker:
Now we'll hear from Richard Kleidman, our final morning presentation, and a good lead-in to our afternoon discussion of education applications.

Over to you, Richard.

Richard is also at GSFC.

Richard Kleidman:
Greg was a friend and colleague. Giovanni began as MOVAS which was inspired by Yoram Kaufamn. I would like to thank everyone who has put this event together.

First I need to tell you a little bit about ARSET. We are a program funded by NASA Applied Sciences to provide professional training and education corresponding to the eight application areas shown in this slide.

The program has been in existence for four years and was originally tasked with providing training in air quality applications. This past year we have also added water resources. Eventually we hope to expand ARSET to cover all eight application areas.

I also want to thank and acknowledge all of the members of the ARSET team and those at NASA HQ who have been very supportive of our program.

In this presentation I will be dealing exclusively with the air quality part of the program

Our primary task is to provide training to professionals working as applied end users in air quality. Space permitting we also allow participation from academic institutions both staff and students.

As you can see we cater to those with little to moderate experience using remote sensing products. We offer both webinar and in-person courses. The ease of use of Giovanni makes it an ideal platform for our training activities and target audience.

These are the kinds of products that we focus on in our trainings.

To teach about the types of products shown in the last slide we frequently make use of the Giovanni instances shown in this slide. They are listed according to the frequency of use.

The slides that follow are taken from a presentation and activity that we use on the first day of almost all of our in person courses. I will only be illustrating one of our activities that is centered around Giovanni. We have several others which we use on a regular basis.

It may take a few seconds to really get the idea behind this comic strip. Interpreting data can be a tricky business.

plots for a specific set of dates and locations. These are carefully pre-selected to show a large difference between Terra and Aqua. We want this to be a good jumping off point for a thoughtful evaluation of satellite data and what the Giovanni Tool does and does not do.

We first provide instructions on how to generate these plots for a specific set of dates and locations. These are carefully pre-selected to show a large difference between Terra and Aqua. We want this to be a good jumping off point for a thoughtful evaluation of satellite data and what the Giovanni Tool does and does not do.

We also change the location depending on our audience

We ask users to first describe the differences produced by the two MODIS sensors and then to spend some time speculating on the potential causes for these differences.

We focus on the area in the white circles

Since our users are not very experienced at this point we then suggest some possibilities and go through a discussion and evaluation of each one.

You can see the flow of ideas we try to bring in from the next several slides.

Here we introduce the idea that the Giovanni tool itself might be a factor in the results.

Now we can use the results of the Giovanni activity as a springboard for learning some things about the product itself.

We begin to review and summarize the factors that could contribute to the differences we saw in the results from the two sensors. We intend that our users will generalize these ideas to alldata sets they will encounter.

The ease of use of Giovanni allows us to have the users go back and plot the results for the same area but a shorter time period. Now we begin to see gaps in the data for Terra and not Aqua.

We use this to lead a discussion about the effects of data sampling. In fact, the reason for the differences in the results between the two sensors is sampling.

There are some high aerosol events that Aqua was able to observe but that Terra was not.

These are the final points we emphasize. Good advice for experienced scientists as well as novices.

This was just one example of how we use Giovanni in our trainings.

Other principal ways we use it are

1) To compare data sets
2) To obtain data in Google Earth format for case study analysis
3) To show when Giovanni is best used as an exploratory tool before deciding if it is worthwhile to do a more in depth study with level 2 data files.

That's all I have to share today.

James Acker:
Thanks Richard. Any questions from the audience? I believe some of you have taken part in ARSET activities.

Note that ARSET training presentations are online. Even in Spanish now, I believe?

Richard Kleidman:
We have a fairly extensive archive of materials. Which we always seem to be reorganizing and updating.

We do have some Spanish presentations.

We have been having a lot of success with our on-line webinars although we usually don't have the time to show off Giovanni.

James Acker:
The Web site is now http://airquality.gsfc.nasa.gov/

Richard Kleidman:
Our current webinar series has about 100 participants viewing live and recorded sessions.

James Acker:
ARSET would be a good model for other professionals. I'm thinking water quality with some of the new products we have.

Richard Kleidman:
And yes webex has fewer glitches.

We have a program for water resources that Amita can tell you about.

James Acker:
But WebEx has some glitches ;-)

Yes, I'd like to speak to her, it dovetails with our data efforts.

Richard Kleidman:
I do have a recording of today's presentation.

James Acker:
We'll post it online with your presentation.
Thanks again.

Richard Kleidman:
Thank you.

James Acker:
That will wrap up a very enlightening morning session - thanks to ALL. Our final event begins at 2 PM, with Daniel Zalles on DICCE, and then an education roundtable discussion. Have a good lunch -- or dinner!

marko bulmer:
Thank you for an interesting morning

James Acker:
You're welcome, Marko. Where are you joining us from?

marko bulmer:

From JCET - the GSFC/UMBC cooperative agreement

James Acker:
Ahh, thanks. Glad to have you.